REMARKS/ARGUMENTS

In the specification, the paragraphs on page 3 starting on lines 13 and 17 have been amended to correct a slight translation error by changing "supply voltage" to "input voltage" to agree better with the inputs of over-voltage detector 14 as depicted in FIGs 1, 2, and 3. The first paragraph on page 2, of the PRELIMINARY AMENDMENT of January 2002 was amended to correct a typographical error: the term "terminal 6" was changed to "terminal 5" in accordance with FIG. 1.

Claims 14-26 remain in this application. Claims 15 and 16 were amended to correct the translation error as discussed above .Claims 27-28 were canceled. Claim 14 was narrowed by merging dependent claim 28 into independent claim 14. Claims 1-13 were previously canceled.

Briefly, Applicant wishes to point out the major features of his invention, which integrates in an IC all the functions required for a charge/discharge circuit for a rechargeable battery, thus providing significant savings and economic advantage. This is achieved with a circuit technology with a significantly lower than required electric strength (dielectric strength) for the worst case condition. Components need to match only the actual maximum battery voltage thus requiring little real estate on the IC and further reducing the cost of production. The protection circuit can, therefore, be economically realized in standard sub-micro technology having a low break-down voltage. This task is solved by first opening the load current switch when the maximally allowable load current has been exceeded. Should however the voltage rise to just below the breakdown voltage (the worst case condition), then the load switch closes again thus avoiding breakdown. Now, however, an inadmissible high load current flows. This already can lead to the desired melting of the integrated fuse if the current is high enough. If not high enough then the short-circuit switch closes after a brief time

delay causing the destruction of the fuse and protecting the battery from a dangerous over-charge and eliminating any over-voltages.

Claim Rejections – 35 USC § 102

Reconsideration of the rejection of Claims 14-28 under 35 U.S.C. 102(b) as being anticipated by Fernandez et al. (USPN 5,602,460) or Smith (USPN 5,703,463) is requested, in light of the following arguments.

Regarding independent claim 14, Applicant's claimed invention differs from Fernandez et al. (USPN 5,602,460) because Applicant provides an over-voltage detector which is activated when it reaches a fixed voltage limit which depends on the electric strength of the protection circuit. See Applicant's claim 14:

> ... said control logic comprising an over-voltage detector which closes said short-circuit switch when reaching a predetermined voltage limit, where said predetermined voltage limit depends on the electric strength of said protection circuit.

Fernandez et al. does not claim a circuit where a " *predetermined voltage limit depends on the electric strength of said protection circuit.*". Applicant's claimed invention is therefore not believed to be the same as Fernandez et al.

Regarding independent claim 14, furthermore, Applicant's claimed invention differs from Fernandez et al. because Applicant integrates all components on the IC with the exception of capacitors. See newly narrowed claim 14, last paragraph, above in Amendments to the Claims:

> where with the exception of capacitors, all parts of said protection circuit are integrated on said chip, including said load current switch, said short-circuit switch, and said fusible link.

Fernandez et al. does not claim integration of components into an IC since he refers to resistor in his specification (col. 6, paragraphs starting on lines 10, 43, 61, col. 7 lines

21, 38) and claims 5, 6, 8, 13, 18, 19, 21, and 26. Applicant's claimed invention is therefore not believed to be the same as Fernandez et al.

Regarding independent claim 14, Applicant's claimed invention differs from Smith (USPN 5,703,463) because Applicant provides an over-voltage detector which is activated when it reaches a fixed voltage limit which depends on the electric strength of the protection circuit. See Applicant's claim 14:

> ... said control logic comprising an over-voltage detector which closes said short-circuit switch when reaching a predetermined voltage limit, where said predetermined voltage limit depends on the electric strength of said protection circuit.

Smith does not claim a circuit where a " *predetermined voltage limit depends on the electric strength of said protection circuit.*". Applicant's claimed invention is therefore not believed to be the same as Smith.

Regarding independent claim 14, furthermore, Applicant's claimed invention differs from Smith because Applicant claims integration of all parts, with the exception of capacitors, on an IC. See newly narrowed claim 14, last paragraph, above in Amendments to the Claims:

> where with the exception of capacitors, all parts of said protection circuit are integrated on said chip, including said load current switch, said short-circuit switch, and said fusible link.

Whereas Smith provides a series of package levels. See Smith's invention col 5, paragraph starting on line 10:

> ... More particularly, battery pack 100 consists of an integrated circuit, a package leadframe, a circuit board and components thereon, and an external housing which provides terminals for interfacing the battery pack 100 with a load or a charger.

Therefore, in Smith's invention fuse 108, resistors 128, 135, 145, 156, and transistors 105, 106, 111, and 166 are all discrete components. Applicant's claimed invention is therefore not believed to be the same as Smith.

Reconsideration of the rejection of claim 14 under 35 U.S.C. 102(b) as being anticipated by Fernandez et al. (USPN 5,602,460) or Smith (USPN 5,703,463) is requested, since claim 14 has been narrowed by bringing claim 28 into claim 14.

Reconsideration of the rejection of claims 15-26 under 35 U.S.C. 102(b) as being anticipated by Fernandez et al. (USPN 5,602,460) or Smith (USPN 5,703,463) is requested, since claims 15-26 now depend on the narrowed claim 14.

Reconsideration of the rejection of claims 27-28 under 35 U.S.C. 102(b) as being anticipated by Fernandez et al. (USPN 5,602,460) or Smith (USPN 5,703,463) is requested, since claims 27-28 have been canceled and, therefore, the rejection is moot.

Applicant does not understand the last two lines of Page 2 of Examiner's DETAILED ACTION which appear to be truncated in mid-sentence. Examiner refers to claims 2-15, though claims 1-13 were canceled in Applicant's PRELIMINARY AMENDMENT dated January 15, 2002. The reference to claims 14-15 is unclear because of the above mentioned truncated sentence at the bottom of Page 2.

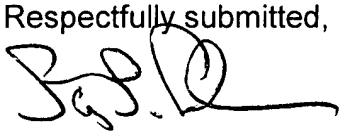
We have reviewed the related art references made of record and feel that none of these suggest the present claimed invention.

All claims are now believed to be allowable.

It is requested that should Examiner Patel not find that the Claims are now Allowable that Examiner please call the undersigned attorney at (845) 452-5863, to overcome any problems preventing allowance.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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